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- Education** **PhD, Geosciences**, Princeton University, Jun 2005
Title: 'Global Mantle Convection Models with Mobile Continents.'
MA, Geosciences, Princeton University, Nov 2002
BS, Physics, high distinction, minor Astronomy, University of Virginia, May 1999.
- Appointments** **Program Director and Visiting Scientist**, Jul 2008–present
Geophysics Program, Division of Earth Sciences
National Science Foundation, Arlington, VA.
Director's Postdoctoral Fellow, Jan 2006–Jun 2008
Earth & Environmental Sciences Division, Geology & Geophysics Groups
Los Alamos National Laboratory, Los Alamos, NM.
Visiting Scientist, Oct 2005–Dec 2005
Institut de Physique du Globe de Paris, Paris, France.
Graduate Student, Aug 2000–Jun 2005
Princeton University, Princeton, NJ.
Research Scientist Associate, Jul 1999–Jul 2000
Institute for Geophysics at the University of Texas at Austin, Austin, TX.
Physical Science Aide, summer 1998
Marine Physics Branch, Naval Research Laboratory, Washington, DC.
Research Assistant, summers 1995–1997
Plasma Physics Branch, Naval Research Laboratory, Washington, DC.
- Publications** **B. R. Phillips**, H.-P. Bunge, K. Schaber, True polar wander in mantle convection models with multiple, mobile continents, invited contrib. in review for *Gondwana Research*.
N. Coltice, H. Bertrand, P. Rey, F. Jourdan, **B. R. Phillips**, Y. Ricard, Global warming of the mantle beneath continents back to the Archean, invited contrib. in review for *Gondwana Research*.
B. R. Phillips, W. S. Baldrige, C. W. Gable, J. M. Sicilian, 2007, Duration of the Banco Bonito rhyolite eruption, Valles caldera, New Mexico, based on magma transport modeling, *New Mexico Geol. Soc. Guidebook*, 58th Field Conf., 382–387.
B. R. Phillips, H.-P. Bunge, 2007, Supercontinent cycles disrupted by strong mantle plumes, *Geology*, 35(9), 847–850.
N. Coltice, **B. R. Phillips**, H. Bertrand, Y. Ricard, P. Rey, 2007, Global warming of the mantle at the origin of flood basalts over supercontinents, *Geology* 35(5), 391–394.

- B. R. Phillips**, H.-P. Bunge, 2007, Heterogeneity and time dependence in 3D spherical mantle convection models with continental drift, *Earth Planet. Sci. Lett.* 233, 121-135.
- Selected Abstracts**
- B. R. Phillips**, N. Coltice, H. Bertrand, Y. Ricard, P. Rey, 2007, Mantle Evolution Beneath Supercontinents Since the Archean, *Eos Trans. AGU* 88(52), Fall Meet. Suppl., Abstract T11C-0728. (Poster– San Francisco, CA)
- B. R. Phillips**, N. Coltice, H. Bertrand, Y. Ricard, P. Rey, 2007, Supercontinental Warming, Plumes, and Mantle Evolution, *Geochimica et Cosmochimica Acta*, 71(15), suppl., A786, 17th Annual Goldschmidt Conference. (Poster– Cologne, Germany)
- B. R. Phillips**, W. S. Baldrige, C. W. Gable, J. M. Sicilian, 2007, The stability of dike-fed eruptions based on magma transport modeling, *Eos Trans. AGU* 88(23), Jt. Assem. Suppl., Abstract V42A-08. (Talk– Acapulco, Mexico)
- B. R. Phillips**, W. S. Baldrige, C. W. Gable, J. M. Sicilian, 2006, Melt transport in continental magma fracture systems, *Eos Trans. AGU* 87(52), Fall Meet. Suppl., Abstract V23D-0649. (Poster– San Francisco, CA)
- N. Coltice, **B. R. Phillips**, H. Bertrand, Y. Ricard, P. Rey, 2006, Supercontinental warming of the mantle at the origin of gigantic flood basalts, *Eos Trans. AGU* 87(52), Abstract V13B-0676. (Poster– San Francisco, CA)
- G. Duclaux, P. Rey, N. Coltice, R. P. Ménot, S. Guillot, J.J. Peucat, **B. R. Phillips**, 2006, Late-Archean UHT event and break-up of the first Supercontinent: Insights from the Terre Adélie Craton, Comité National Français pour les Recherches Arctiques et Antarctiques, 4–5 October. (Poster– Paris, France)
- B. R. Phillips**, H.-P. Bunge, 2006, Irregular supercontinent cycles in global geodynamic models with multiple continents, *Geophys. Res. Abstr.* Vol. 8, 03000. (Poster– Vienna, Austria)
- B. R. Phillips**, H.-P. Bunge, 2005, Aggregation and Dispersal of Supercontinents in Global Mantle Convection Models, Supercontinents and Earth Evolution Symposium. (Talk– Fremantle, Australia)
- B. R. Phillips**, H.-P. Bunge, 2004, Length and Time Scales in Continental Drift, *Geophys. Res. Abstr.* Vol. 6, 05220. (Talk– Nice, France)
- Teaching & Advising**
- Co-Instructor**, "Geology of the Hawaiian Islands," an undergraduate field trip to Hawaii with Assistant Professor Chris Gregg of East Tennessee State University, Mar 2008.
- Field Trip Assistant**, "Summer of Applied Geophysical Experience (SAGE)," three week course in geophysical field methods through Los Alamos, summer 2007.
- Assistant Instructor**, "FRS 149–Active Geological Processes," focused around a one week freshman field trip to Long Valley Caldera, Princeton, fall 2003 and 2004.
- Assistant Instructor**, "COS 590–Computational Methods & their Applications across Disciplines," a graduate course in computational physics, Princeton, spring 2004.
- Assistant Instructor**, "GEO 416–Evolution of the Continents," focused around a one week field trip in Arizona, Utah, Nevada, and California, Princeton, spring 2004.
- Laboratory Instructor**, "GEO 210–Earthquakes, Volcanoes, and Other Hazards," Princeton, spring 2003.

	<p>Laboratory Instructor, "GEO 225–The Physical Environment," Princeton, fall 2001.</p> <p>Graduate Fellow of Mathey College (by student nomination), academic and social advisor for students of this Princeton undergraduate college, 2002–2005.</p>
Field Experience	<p>New Mexico Geological Society Field Conference, fall 2007 Field presenter during three day tour of the Jemez mountains and Valles caldera, NM.</p> <p>Summer School on Geodynamics and Magmatic Processes, summer 2007 Ten day field course in Iceland arranged through the Nordic Volcanological Center.</p> <p>Summer of Applied Geophysical Experience (SAGE), summer 2006 Three week course in geophysical field methods through Los Alamos.</p> <p>Volcano Monitoring, summer 2003 Three week field course in Hawaii operated by the Center for the Study of Active Volcanoes (CSAV) and the University of Hawaii at Hilo.</p>
Awards & Funding	<p>Institute of Geophysics and Planetary Physics Minigrant (University of CA/LANL) Grant to fund continued postdoctoral study at Los Alamos, 2007–2008.</p> <p>American Association for the Advancement of Science Excellence in Science Program, sponsored member, 2007–2008.</p> <p>Charlotte Elizabeth Procter Honorific Fellowship, Graduate School award supporting the final year of study, Princeton University, 2004–2005.</p> <p>Arnold Guyot Bronze Award, excellence in teaching, Princeton Geosciences, 2003.</p> <p>NSF IGERT Award, Program in Integrative Information, Computer and Application Sciences, graduate fellowship, Princeton University, 2001–2004.</p> <p>Harry Hess Fellowship, first year graduate award, Princeton Geosciences, 2000–2001.</p> <p>Dusenbury Prize, first year graduate award, Princeton Geosciences, 2000.</p>
Memberships	<p>American Association for the Advancement of Science (AAAS).</p> <p>American Geophysical Union (AGU).</p> <p>New Mexico Geological Society (NMGS).</p>
Computer Expertise	<p>Software/Languages– MATLAB, FORTRAN, HTML, \LaTeX, Linux/UNIX, Message Passing Interface (MPI) for parallel programming, ParaView, Visualization Toolkit (VTK), Generic Mapping Tools (GMT), ArcView Geographic Information System (GIS), Adobe Illustrator and Photoshop.</p> <p>Hardware/Techniques– Massively parallel computer architecture (Beowulf clusters), Finite Element Method (FEM), Particle-in-Cell method (PIC), Multigrid method for the solution of differential equations.</p>

References

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